Appl. No. 09/939,345

Amdt. dated July 6, 2004

Reply to Office action of June 3, 2004

Attorney Docket No. 1999/US

Express Mail No. EV 447 214 945 US

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

- 1. (Original) An electrode for an electric energy-generating or -storing device, comprising: a carbonyl aromatic polymer having at least one unit that contains at least one cyclopentanone structure condensed with at least two aromatic rings.
- 2. (Original) The electrode of claim 1, wherein the carbonyl aromatic polymer is doped with an anion or cation.
- 3. (Original) The electrode of claim 1 further comprising a current collector.
- 4. (Original) The electrode of claim 1 further comprising an electroconductive agent.
- 5. (Original) The electrode of claim 1 further comprising a second electroconductive polymer.
- 6. (Original) The electrode of claim 1 further comprising a metal oxide.
- 7. (Original) The electrode of claim 1, wherein the carbonyl aromatic polymer comprises at least 20% by weight units having at least one cyclopentanone structure condensed with at least two aromatic rings.
- 8. (Original) The electrode of claim 1, wherein the electrode is a positive electrode.
- 9. (Original) The positive electrode of claim 8, wherein the carbonyl aromatic polymer is doped with an anion or cation.

2

- 10. (Original) The positive electrode of claim 8 further comprising a current collector.
- 11. (Original) The positive electrode of claim 8 further comprising an electroconductive agent.
- 12. (Original) The positive electrode of claim 8 further comprising a metal oxide.
- 13. (Original) The positive electrode of claim 8 further comprising a second electroconductive polymer.
- 14. (Original) The positive electrode of claim 8, wherein the carbonyl aromatic polymer comprises at least 20% by weight units of at least one cyclopentanone structure condensed with at least two aromatic rings.
- 15. (Original) The electrode of claim 1, wherein the electrode is a negative electrode.
- 16. (Original) The negative electrode of claim 15 further comprising a current collector.
- 17. (Original) The negative electrode of claim 15, wherein the carbonyl aromatic polymer is doped with a cation or anion.
- 18. (Original) The negative electrode of claim 15 further comprising an electroconductive agent.
- 19. (Original) The negative electrode of claim 15 further comprising a second electroconductive polymer.
- 20. (Original) The negative electrode of claim 15, wherein the carbonyl aromatic polymer

comprises at least 20% by weight units of at least one cyclopentanone structure condensed with at least two aromatic rings.

- 21. (Original) The electrode of claim 1, wherein the electric energy-generating or -storing device is a battery.
- 22. (Original) The electrode of claim 21, wherein the battery is a secondary battery.
- 23. (Original) The electrode of claim 1, wherein the electric energy-generating or -storing device is a capacitor.
- 24. (Original) The electrode of claim 1, wherein the electric energy-generating or -storing device is a fuel cell.
- 25. (Original) The electrode of claim 1, wherein the carbonyl aromatic polymer is poly(9-fluorenone).
- 26. (Original) The electrode of claim 1, wherein the carbonyl aromatic polymer is poly(cyclopenta[def]fluorene-4,8-dione).
- 27. (Original) The electrode of claim 1, wherein the carbonyl aromatic polymer is poly(benzo[b]fluoren-11-one).
- 28. (Original) The electrode of claim 1, wherein the carbonyl aromatic polymer is poly(dibenzo[b,h]fluoren-12-one).
- 29. (Original) The electrode of claim 1, wherein the carbonyl aromatic polymer is poly(cyclopenta[def]phenanthren-4-one).

- 30. (Original) The electrode of claim 1, wherein the carbonyl aromatic polymer is poly(8H-cyclopenta[def]fluoren-4-one).
- 31. (Original) The electrode of claim 1, wherein the carbonyl aromatic polymer is poly(indeno[1,2-b]fluorene-6,12-dione).
- 32. (Original) An electric-generating or -storing device comprising: at least one electrode, the electrode comprising a carbonyl aromatic polymer having at least one unit that contains at least one cyclopentanone structure condensed with at least two aromatic rings.
- 33. (Original) The electric energy-generating or -storing device of claim 32 further comprising an electroconductive agent added to the carbonyl aromatic polymer.
- 34. (Original) The electric energy-generating or -storing device of claim 32 further comprising a second electroconductive polymer added to the carbonyl aromatic polymer.
- 35. (Original) The electric energy-generating or -storing device of claim 32, further comprising a metal oxide added to the carbonyl aromatic polymer.
- 36. (Original) The electric energy-generating or -storing device of claim 32, wherein the carbonyl aromatic polymer comprises at least 20% by weight units of at least one cyclopentanone structure condensed with at least two aromatic rings.
- 37. (Original) The electric energy-generating or -storing device of claim 32, wherein the electric energy-generating or -storing device is a battery.
- 38. (Original) The electric energy-generating or -storing device of claim 37, wherein the

battery is a secondary battery.

- 39. (Withdrawn) The electric energy-generating or -storing device of claim 32, wherein the electric energy-generating or -storing device is a capacitor.
- 40. (Withdrawn) The electric energy-generating or -storing device of claim 32, wherein the electric energy-generating or -storing device is a fuel cell.
- 41. (Original) The electric energy-generating or -storing device of claim 32 further comprising a second electrode comprising a carbonyl aromatic polymer having at least one unit that contains at least one cyclopentanone structure condensed with at least two aromatic rings.
- 42. (Original) The electric energy-generating or -storing device of claim 32, wherein the electrode further comprises a current collector.
- 43. (Original) The electric energy-generating or -storing device of claim 32, wherein the electrode further comprises an electroconductive agent.
- 44. (Original) The electric energy-generating or -storing device of claim 41, wherein at least one of the two electrodes further comprises a second electroconductive polymer.
- 45. (Original) The electric energy-generating or -storing device of claim 41, wherein at least one of the two electrodes further comprises a metal oxide.
- 46. (Original) The electric energy-generating or -storing device of claim 41, wherein the carbonyl aromatic polymer comprises at least 20% by weight units of at least one cyclopentanone structure condensed with at least two aromatic rings.

- 47. (Original) The electric energy-generating or -storing device of claim 41, wherein the electric energy-generating or -storing device is a battery.
- 48. (Original) The electric energy-generating or storing device of claim 47, wherein the battery is a secondary battery.
- 49. (Withdrawn) The electric energy-generating or -storing device of claim 41, wherein the electric energy-generating or -storing device is a capacitor.
- 50. (Withdrawn) The electric energy-generating or -storing device of claim 41, wherein the electric energy-generating or -storing device is a fuel cell.
- 51. (Original) A battery comprising: a positive electrode; a negative electrode; and an electrolyte, wherein the positive electrode comprises a carbonyl aromatic polymer having at least one unit that contains at least one cyclopentanone structure condensed with at least two aromatic rings.
- 52. (Original) The battery of claim 51, wherein the battery is a secondary battery.
- 53. (Original) The battery of claim 51, wherein the positive electrode is doped with an anion.
- 54. (Original) The battery of claim 51, wherein the positive electrode is doped with a cation.
- 55. (Original) The battery of claim 51, wherein the positive electrode further comprises a current collector.
- 56. (Original) The battery of claim 51, wherein the positive electrode further comprises an electroconductive agent.

- 57. (Original) The battery of claim 51, wherein the positive electrode further comprises a second electroconductive polymer.
- 58. (Original) The battery of claim 51, wherein the positive electrode further comprises a metal oxide.
- 59. (Original) The battery of claim 51, wherein the carbonyl aromatic polymer comprises at least 20% by weight units of at least one cyclopentanone structure condensed with at least two aromatic rings.
- 60. (Original) A battery comprising: a positive electrode; a negative electrode; and an electrolyte, wherein the negative electrode comprises a carbonyl aromatic polymer having at least one unit that contains at least one cyclopentanone structure condensed with at least two aromatic rings.
- 61. (Original) The battery of claim 60, wherein the battery is a secondary battery.
- 62. (Original) The battery of claim 60, wherein the negative electrode is doped with an anion.
- 63. (Original) The battery of claim 60, wherein the negative electrode is doped with a cation.
- 64. (Original) The battery of claim 60, wherein the negative electrode further comprises a current collector.
- 65. (Original) The battery of claim 60, wherein the negative electrode further comprises an electroconductive agent.

- 66. (Original) The battery of claim 60, wherein the negative electrode further comprises a second electroconductive polymer.
- 67. (Original) The battery of claim 60, wherein the carbonyl aromatic polymer comprises at least 20% by weight units of at least one cyclopentanone structure condensed with at least two aromatic rings.
- 68. (Original) A battery comprising: a positive electrode; a negative electrode; and an electrolyte, wherein the positive electrode comprises a carbonyl aromatic polymer having at least one unit that contains at least one cyclopentanone structure condensed with at least two aromatic rings and the negative electrode comprises a carbonyl aromatic polymer having at least one unit that contains at least one cyclopentanone structure condensed with at least two aromatic rings.
- 69. (Original) The battery of claim 68, wherein the battery is a secondary battery.
- 70. (Original) The battery of claim 68, wherein the negative electrode is doped with an anion.
- 71. (Original) The battery of claim 68, wherein the negative electrode is doped with a cation.
- 72. (Original) The battery of claim 68, wherein the positive electrode is doped with an anion.
- 73. (Original) The battery of claim 68, wherein the positive electrode is doped with a cation.
- 74. (Original) The battery of claim 68, wherein the positive electrode is doped with an anion and the negative electrode is doped with a cation.

- 75. (Original) The battery of claim 68, wherein at least one of the positive or negative electrodes further comprises a current collector.
- 76. (Original) The battery of claim 68, wherein at least one of the positive or negative electrodes further comprises an electroconductive agent.
- 77. (Original) The battery of claim 68, wherein at least one of the positive or negative electrodes further comprises a second electroconductive polymer.
- 78. (Original) The battery of claim 68, wherein the positive electrode further comprises a metal oxide.
- 79. (Original) The battery of claim 68, wherein the carbonyl aromatic polymer comprises at least 20% by weight units of at least one cyclopentanone structure condensed with at least two aromatic rings.
- 80. (Withdrawn) A capacitor comprising: a positive electrode; a negative electrode; and an electrolyte, wherein the positive electrode comprises a carbonyl aromatic polymer having at least one unit that contains at least one cyclopentanone structure condensed with at least two aromatic rings.
- 81. (Withdrawn) The capacitor of claim 80, wherein the positive electrode further comprises a current collector.
- 82. (Withdrawn) The capacitor of claim 80, wherein the positive electrode further comprises an electroconductive agent.
- 83. (Withdrawn) The capacitor of claim 80, wherein the positive electrode further comprises

a second electroconductive polymer.

- 84. (Withdrawn) The capacitor of claim 80, wherein the positive electrode further comprises a metal oxide.
- 85. (Withdrawn) The capacitor of claim 80, wherein the carbonyl aromatic polymer comprises at least 20% by weight units of at least one cyclopentanone structure condensed with at least two aromatic rings.
- 86. (Withdrawn) A capacitor comprising: a positive electrode; a negative electrode; and an electrolyte, wherein the negative electrode comprises a carbonyl aromatic polymer having at least one unit that contains at least one cyclopentanone structure condensed with at least two aromatic rings.
- 87. (Withdrawn) The capacitor of claim 86, wherein the negative electrode further comprises a current collector.
- 88. (Withdrawn) The capacitor of claim 86, wherein the negative electrode further comprises an electroconductive agent.
- 89. (Withdrawn) The capacitor of claim 86, wherein the negative electrode further comprises a second electroconductive polymer.
- 90. (Withdrawn) The capacitor of claim 86, wherein the carbonyl aromatic polymer comprises at least 20% by weight units of at least one cyclopentanone structure condensed with at least two aromatic rings.
- 91. (Withdrawn) A capacitor comprising: a positive electrode; a negative electrode; and an

electrolyte, wherein the positive electrode comprises a carbonyl aromatic polymer having at least one unit that contains at least one cyclopentanone structure condensed with at least two aromatic rings and the negative electrode comprises a carbonyl aromatic polymer having at least one unit that contains at least one cyclopentanone structure condensed with at least two aromatic rings.

- 92. (Withdrawn) The capacitor of claim 91, wherein at least one of the positive or negative electrodes further comprises a current collector.
- 93. (Withdrawn) The capacitor of claim 91, wherein at least one of the positive or negative electrodes further comprises an electroconductive agent.
- 94. (Withdrawn) The capacitor of claim 91, wherein at least one of the positive or negative electrodes further comprises a second electroconductive polymer.
- 95. (Withdrawn) The capacitor of claim 91, wherein the positive electrode further comprises a metal oxide.
- 96. (Withdrawn) The capacitor of claim 91, wherein the carbonyl aromatic polymer comprises at least 20% by weight units of at least one cyclopentanone structure condensed with at least two aromatic rings.
- 97. (Withdrawn) A fuel cell comprising: an air electrode; a fuel electrode; and an electrolyte, wherein the air electrode comprises a carbonyl aromatic polymer having at least one unit that contains at least one cyclopentanone structure condensed with at least two aromatic rings.
- 98. (Withdrawn) The fuel cell of claim 97, wherein the air electrode further comprises an electroconductive agent.

- 99. (Withdrawn) The fuel cell of claim 97, wherein the carbonyl aromatic polymer comprises at least 20% by weight units of at least one cyclopentanone structure condensed with at least two aromatic rings.
- 100. (Withdrawn) A fuel cell comprising: an air electrode; a fuel electrode; and an electrolyte, wherein the fuel electrode comprises a carbonyl aromatic polymer having at least one unit that contains at least one cyclopentanone structure condensed with at least two aromatic rings.
- 101. (Withdrawn) The fuel cell of claim 100, wherein the fuel electrode further comprises an electroconductive agent.
- 102. (Withdrawn) The fuel cell of claim 100, wherein the carbonyl aromatic polymer comprises at least 20% by weight units of at least one cyclopentanone structure condensed with at least two aromatic rings.
- 103. (Withdrawn) A fuel cell comprising: an air electrode; a fuel electrode; and an electrolyte, wherein the air electrode comprises a carbonyl aromatic polymer having at least one unit that contains at least one cyclopentanone structure condensed with at least two aromatic rings and the fuel electrode comprises a carbonyl aromatic polymer having at least one unit that contains at least one cyclopentanone structure condensed with at least two aromatic rings.
- 104. (Withdrawn) The fuel cell of claim 103, wherein at least one of the positive or negative electrodes further comprises an electroconductive agent.
- 105. (Withdrawn) The fuel cell of claim 103, wherein the carbonyl aromatic polymer comprises at least 20% by weight units of at least one cyclopentanone structure condensed with at least two aromatic rings.